CRUSTACEA.

PART VII.—MYSIDACEA.

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WITH FOUR PLATES.

I.—INTRODUCTION.

The collection of Mysidacea obtained by the "Terra Nova" includes twenty species, of which six were captured in Antarctic waters, twelve off New Zealand, and three (including one also caught in New Zealand waters) in the Atlantic.

It was perhaps hardly to be expected that the collections would contain much in the way of novelties from the Antarctic seas. At least nine expeditions have explored these waters in the last twenty years, and our knowledge of the fauna, though not by any means complete, is considerable. Additions to the list of known forms are to be looked for among smaller material collected by special means rather than from collections made by dredging and trawling in the ordinary way. Only one new species, *Mysidetes brachylepis*, was collected by the "Terra Nova" in the Antarctic Ocean, and only six species were obtained there altogether.

It may not be without interest to summarise the results of recent Antarctic exploration, with reference to the Mysidacea, in tabular form. Regan (1914), as a result of his examination of collections of Antarctic fishes, has divided the waters of the south polar regions into two zoo-geographical areas:—(1) Antarctic zone—including the Antarctic continent and islands to the south of the isotherm of 6° C.—with two districts, Glacial and Kerguelen; and (2) Sub-antarctic zone—including

the Falklands, southern extremity of S. America, extreme south of New Zealand and the outlying sub-antarctic islands, an area bounded to the north and south by the isotherms of 12° C. and 6° C. respectively—with two districts, Magellan and Antipodes. The following list includes all the species of Mysidacea of which I can find records from the two zones as defined by Regan, and the species have been tabulated under the same districts as used by him for fishes. As far as the evidence available from this list goes, it supports Regan's conclusion that the Antarctic zone should include both the South Georgia area and Kerguelen. It should be emphasised, however, that the Mysidaceans included in the table do not present any evidence of a distinct and definite Antarctic Mysidacean fauna. They represent part of a deep and cold water fauna which is more or less distributed over the deeper oceans of the world. Only one genus, *Antarctomysis*, is peculiar to southern polar waters. All the other genera have representatives in the deep water of the North Atlantic, Mediterranean and Pacific Oceans, and are therefore inconclusive for separating an Antarctic from a general deep water element. It should, however, be borne in mind that the records of Mysidacea from the Antarctic zone, as defined by Regan, are all from deep water. Nothing is yet known of the littoral Mysids of the various lands and islands in that zone, and it is from such a littoral fauna, if it exists, that evidence will be obtained from which deductions of a zoo-geographical kind can be made. Similarly, ignorance of the Mysidacean fauna of the sub-antarctic zone, as defined by Regan, makes it impossible to institute a comparison between that zone and the Antarctic. The only record from the Antipodes district is of a species allied to the littoral fauna of temperate New Zealand. From the Magellan region, *Mysidopsis acuta* and *Neomysis patagona* are representatives of temperate genera, *Mysidetes crassa*, of a deep water genus of wide distribution, and *Antarctomysis* sp., of a genus whose known distribution is otherwise purely Antarctic.

Accepting Regan's definition of the Antarctic zone, twenty-one species of Mysidacea are at present known from that region. It should be noted that *Echinomysis chuni*, stated by Illig (1905) in his preliminary paper to have been obtained in the Antarctic Ocean, is probably not Antarctic at all, as in his later paper dealing with this species Illig (1912) gives no Antarctic localities at which it was taken.

As with the Isopoda collected by the "Terra Nova," the Mysidacea are interesting from the light which they throw on the Mysidacean fauna of New Zealand, a region hitherto practically unexplored from this point of view. The first Mysid to be recorded from New Zealand was *Siriella denticulata*, described by G. M. Thomson in 1880 under the genus *Mysis*, and subsequently in 1900 referred to its correct genus. In 1881 Kirk described a New Zealand species under the name *Mysis meinertzhagenii*, but it is impossible to recognise even the genus from the short and inadequate description, and efforts to trace the type specimen have failed. This species must remain, therefore, for the present, problematical. In 1900 G. M. Thomson described a species common in brackish waters near Dunedin under the name *Tenagomysis novae-zealandiae*, and this

DISTRIBUTION OF ANTARCTIC AND SUB-ANTARCTIC MYSIDACEA.

—	Kerguelen.	South Georgia.	South Orkneys.	Graham Land.	Victoria Land.	Wilhelm Land.	Antipodes.	Magellan.	Falklands.	—
Eucopia australis	x	x	x	x	x	x	–	–	–	
Hansenomysis antarctica	–	–	–	x	x	x	–	–	–	——
Boreomysis distinguenda	x	–	x	–	–	–	–	–	–	——
Boreomysis brucei	–	–	x	–	–	–	–	–	–	——
Pseudomma belgicae	–	–	–	x	x	x	–	–	–	——
Pseudomma armatum	–	x	–	–	–	–	–	–	–	——
Pseudomma sarsii	x	x	–	–	–	–	–	–	–	——
Pseudomma antarcticum	–	–	–	–	–	x	–	–	–	——
Amblyops crozetti	x	–	–	–	–	–	–	–	–	——
Amblyops tattersalli	–	–	–	–	x	x	–	–	–	——
Dactylamblyops hodgsoni	–	–	–	–	x	x	–	–	–	Also collected by the "Valdivia," but exact locality not stated.
Dactylamblyops antarctica	–	x	–	–	–	–	–	–	–	——
Mysidopsis acuta	–	–	–	–	–	–	–	–	x	——
Tenagomysis tenuipes	–	–	–	–	–	–	x	–	–	——
Mysidetes posthon	–	x	–	x	x	x	–	–	–	——
Mysidetes similis	–	–	–	–	–	x	–	–	–	——
Mysidetes crassa	–	–	–	–	–	–	–	–	x	——
Mysidetes kerguelensis	x	–	–	–	–	–	–	–	–	——
Mysidetes hanseni	–	–	–	–	–	x	–	–	–	——
Mysidetes illigi	–	–	–	–	–	x	–	–	–	——
Mysidetes brachylepis	–	–	–	–	x	–	–	–	–	——
Neomysis patagona....	–	–	–	–	–	–	–	x	x	Zimmer, 1907 ; Hansen, 1913.
Antarctomysis maxima	–	x	x	x	x	x	–	–	–	——
Antarctomysis ohlinii	–	x	–	–	x	–	–	–	–	——
Antarctomysis sp.	–	–	–	–	–	–	–	x	–	Zimmer, 1915 (2).

species has been recorded since by Chilton (1906) from further localities. In 1908 Calman recorded a specimen from New Zealand which he referred to the genus *Pseudomma*, but this was too immature to name specifically. In 1913 I recorded *Siriella denticulata* from Auckland Harbour, and in 1918 I described a second species of *Tenagomysis*, *T. tenuipes*, from Carnelly Harbour, Auckland Islands, while Zimmer, in 1918, recorded *Theganomysis* sp. (obviously a misprint for *Tenagomysis* sp.), from the Bay of Plenty.

This, in brief, is the history of our knowledge of the Mysidacean fauna of New Zealand to date, and the net result is three good species and two doubtful. The "Terra Nova" collected twelve species off the coasts of New Zealand, only one of which, *Siriella denticulata*, had been recorded from there before. In addition, I describe below a new species of *Tenagomysis*, not collected by the "Terra Nova," but sent to me by Professor Chilton, so that the total number of New Zealand species of Mysidacea is now brought up to fifteen. Of the twelve species collected by the "Terra Nova," seven are described as new and, of these, no fewer than six are referred to the genus *Tenagomysis*. Unknown elsewhere, this is the characteristic Mysid genus of New Zealand. Nine species in all are now known, and I have taken the opportunity afforded by the present material to summarise our knowledge of the genus and to provide a key to the species. Further species of Mysidacea undoubtedly await the energetic collector in New Zealand. Professor Chilton has sent me a single damaged Mysid, collected at Akaroa in 6 fathoms of water by the late H. Suter. I am unable to identify it, or to refer it to its correct genus, because of its condition, but it most certainly represents a new species of a genus allied to *Neomysis*, possibly identical with it. I hoped, at first, that it might prove to be Kirk's forgotten species, but it does not agree with his description. Here, then, are at least three species to be found and described, and there must be many others.

The most interesting of the remaining species collected by the "Terra Nova," is one captured off the east coast of South America, which I have referred to Dana's long-forgotten genus *Promysis*, with which I regard Hansen's *Uromysis* as synonymous.

My thanks are due to the authorities of the British Museum for entrusting me with this collection for examination and report, and especially to Dr. W. T. Calman for much help and advice. I am indebted to Professor W. B. Benham for the opportunity of examining the type specimens of *Tenagomysis novae-zealandiae*, and for other material of this genus, and to Professor C. Chilton, who kindly sent me all the Mysidae in his collections, and gave me much assistance in my endeavours to trace the whereabouts of Kirk's type specimens. To my wife I owe a special debt of thanks for the drawings which illustrate this report.

II.—LIST OF SPECIES.

The classification and arrangement of species followed in this report are those suggested by Hansen (1910) in his report on the "Siboga" collections of this group.

Order MYSIDACEA.

Sub-order LOPHOGASTRIDA.

Family LOPHOGASTRIDAE.

Genus PARALOPHOGASTER, Hansen.

1. *Paralophogaster glaber*, Hansen.

Sub-order MYSIDA.

Family MYSIDAE.

Sub-family SIRIELLINAE.

Genus SIRIELLA, Dana.

2. *Siriella thompsonii* (M.-Ed.).
3. ,, *denticulata* (G. M. Thomson).

Sub-family GASTROSACCINAE.

Genus ANCHIALINA, Norman.

4. *Anchialina typica* (Kr.).

Genus GASTROSACCUS, Norman.

5. *Gastrosaccus australis*, sp. nov.

Sub-family MYSINAE.

Tribe ERYTHROPINI.

Genus EUCHAETOMERA, G. O. Sars.

6. *Euchaetomera typica*, G. O. Sars.
7. ,, *oculata*, Hansen.

Genus PSEUDOMMA, G. O. Sars.

8. *Pseudomma belgicae* (Hansen, MS.), H. & T.

Genus AMBLYOPS, G. O. Sars.

9. *Amblyops tattersalli*, Zimmer.

Tribe LEPTOMYSINI.

Genus PROMYSIS, Dana.

10. *Promysis atlantica*, sp. nov.

Genus MYSIDETES, H. & T.

11. *Mysidetes posthon*, H. & T.
12. ,, *brachylepis*, sp. nov.

Genus TENAGOMYSIS, G. M. Thomson.

13. *Tenagomysis novae-zealandiae*, G. M. Thomson.
14. *Tenagomysis chiltoni*, sp. nov.
15. ,, *similis*, sp. nov.
16. ,, *macropsis*, sp. nov.
17. ,, *robusta*, sp. nov.
18. ,, *thomsoni*, sp. nov.
19. ,, *producta*, sp. nov.
20. ,, *scotti*, sp. nov.
21. ,, *tenuipes*, W. M. T.

Tribe MYSINI.

Genus ANTARCTOMYSIS, Contière.

22. *Antarctomysis maxima* (Hansen, MS.), (H. & T.).
23. *Antarctomysis ohlinii*, Hansen.

III.—LIST OF STATIONS AT WHICH MYSIDACEA WERE TAKEN.

Tropical and Sub-Tropical Atlantic.

Station 31. July 9, 1910, 11° 20′ N., 24° 37′ W., 2 metres, 2.30–3.30 p.m. Plankton.
,, 39. April 27, 1913, Six miles off mouth of Rio de Janeiro Harbour, 2 metres, 11 p.m.–1.30 a.m. Plankton.
,, 40. ,, 27, ,, Six miles off mouth of Rio de Janeiro Harbour, 2 metres, 2.30–5 a.m. Plankton.

TROPICAL AND SUB-TROPICAL ATLANTIC—*continued.*

Station	53.	May	12,	1913,	5° S., 27° 15′ W., 2 metres, 6–7 p.m. Plankton.
,,	58. 59.	,,	16,	,,	0° 25° 15′ W., surface, 1–1.30 a.m. Plankton.
,,	61.	,,	17,	,,	2° N., 24° 45′ W., surface, 1–1.30 a.m. Plankton.
,,	62.	,,	18,	,,	4° 50′ N., 24° W., surface, 1–1.30 a.m. Plankton.
,,	63.	,,	19,	,,	6° 10′ N., 24° 5′ W., surface, 2–2.30 a.m. Plankton.
,,	64. 65.	,,	26,	,,	23° 28′ N., 34° 45′ W., surface, 1.30–2 a.m. Plankton.
,,	67.	,,	27,	,,	25° 35′ N., 34° 10′ W., surface, 1.30–2 a.m. Plankton.
,,	68.	,,	28,	,,	27° 22′ N., 33° 40′ W., surface, 1.30–2 a.m. Plankton.
,,	69.	,,	29,	,,	29° 10′ N., 33° 36′ W., surface, 1.30–2 a.m. Plankton.
,,	70.	June	3,	,,	Off Horta Harbour, Fayal, Azores, 12 metres, 6 p.m.–8 a.m. June 2–June 3. Plankton.

NORTH OF NEW ZEALAND AND NEIGHBOURING WATERS.

Station	75.	July	17,	1911,	From summit, Gt. King, W., 8 miles, surface, 3–3.30 p.m. Plankton.
,,	80.	,,	22,	,,	From summit, Gt. King, N. 87° W., 11 miles, 0–100 metres, 5 p.m. Plankton.
,,	83.	,,	23,	,,	From summit, Gt. King, S. 40° E., 29 miles, 2 metres, 1–4 p.m. Plankton.
,,	84.	,,	23,	,,	From C. Maria van Diemen Light, S.W. by W., 15 miles, 2 metres, 8–9 p.m. Plankton.
,,	85.	,,	24,	,,	From C. Maria van Diemen Light, W.N.W., 24 miles, 2 metres, 1–5 a.m. Plankton.
,,	86.	,,	25,	,,	Off Three Kings Islands, 3 metres, 8 p.m.–5 a.m. (24th–25th). Plankton.
,,	89.	,,	25,	,,	Off Three Kings Islands, surface, 8–10 p.m. Plankton.
,,	90.	,,	25,	,,	From summit, Gt. King, Three Kings Islands, S. 14° W., 8 miles, 100 fathoms (183 metres), bottom fauna (rock).
,,	92.	,,	27,	,,	From summit, Gt. King, S. by W., 24 miles, surface, 9 p.m.–4 a.m. (26th–27th). Plankton.
,,	93.	,,	28,	,,	From summit, Gt. King, S.E. by S., 13 miles, surface, 9 p.m.–4 a.m. (27th–28th). Plankton.
,,	100.	Aug.	4,	,,	From West Island, Three Kings Islands, S.W., 5 miles, surface, 1–2 p.m. Plankton.
,,	101.	,,	4,	,,	From West Island, Three Kings Islands, S.W., 5 miles, surface, 4–5 p.m. Plankton.
,,	106.	,,	4,	,,	From West Island, Three Kings Islands, S.W., 5 miles, surface, 7–8 p.m. Plankton.
,,	108.	,,	5,	,,	34° 15′ S., 172° 0′ E., surface, noon–4 p.m. at intervals. Plankton.
,,	109.	,,	5,	,,	34° 15′ S., 172° 0′ E., 3 metres, 8 p.m.–8 a.m. (5th–6th). Plankton.
,,	110.	,,	6,	,,	34° 4′ S., 171° 55′ E., surface, 9 p.m.–4 a.m. (6th–7th). Plankton.
,,	113.	,,	9,	,,	33° 12′ S., 171° 05′ E., 3 metres, 9 a.m.–noon. Plankton.
,,	120.	,,	18,	,,	34° 26′ S., 172° 14′ E., surface, 9 p.m.–5 a.m. (17th–18th). Plankton.
,,	122.	,,	19,	,,	From C. Maria van Diemen, S. 80° W., 21 miles, surface, 9 p.m.–5 a.m. (18th–19th). Plankton.
,,	126.	,,	24,	,,	34° 13′ S., 172° 15′ E., surface, 9 a.m.–noon. Plankton.
,,	127.	,,	25,	,,	Off Three Kings Islands, surface, 9 p.m.–5 a.m. (24th–25th). Plankton.
,,	130.	,,	27,	,,	Off Three Kings Islands, surface, 8 p.m.–6.30 a.m. (26th–27th). Plankton.
,,	132.	,,	29,	,,	Spirits Bay, near North Cape, 10 metres, 9 a.m.–noon. Plankton.

North of New Zealand and Neighbouring Waters—*continued.*

Station 133. Aug. 30, 1911, Spirits Bay, near North Cape, 20 metres, 8 p.m.–6 a.m. (30th–31st). Plankton.
,, 135. Sept. 1, ,, Spirits Bay, near North Cape, 3 metres, 9 p.m.–6.30 a.m. (31st–1st). Plankton.
,, 136. ,, 2, ,, Spirits Bay, near North Cape, surface, 9 p.m.–6.30 a.m. (1st–2nd). Plankton.
,, 139. ,, 6, ,, 34° 30′ S., 171° 53′ E., surface, 9 p.m.–6.30 a.m. (5th–6th). Plankton.
,, 148. Aug. and Sept., 1912, Bay of Islands, 35° 15′ S., 174° 10′ E., 0–24 metres. Plankton.
,, 242. April 2, 1912, Off Akaroa Heads, New Zealand, 10 metres, 10 a.m. Plankton.

Antarctic Ocean (Ross Sea Area).

Station 194. Feb. 22, 1911, Off Oates Land, 69° 43′ S., 163° 24′ E., 180–200 fathoms (329–366 metres). Bottom fauna (undecomposed animal débris).
,, 314. Jan. 23, ,, 5 miles N. of Inaccessible Island, McMurdo Sound, 222–241 fathoms (406–441 metres). Bottom fauna (mud).
,, 316. Feb. 9, ,, Off Glacier Tongue, about 8 miles N. of Hut Point, McMurdo Sound, 190–250 fathoms (348–457 metres), 5.30 p.m. Bottom fauna (undecomposed animal remains and mud).
,, 331. Jan. 14, 1912, Off Cape Bird Peninsula, entrance to McMurdo Sound, 250 fathoms (457 metres). Bottom fauna (mud).
,, 332. ,, 16, ,, 77° 15′ S., 166° 0′ E., 0–550 metres, 2 a.m. Plankton.
,, 338. ,, 23, ,, 77° 13′ S., 164° 18′ E., 207 fathoms (379 metres). Bottom fauna (mud).
,, 339. ,, 24, ,, 77° 5′ S., 164° 17′ E., 140 fathoms (256 metres). Bottom fauna (mud).
,, 343. Feb. 1, ,, Off Cape Royds, 0–600 metres, noon. Plankton.
,, 346. ,, 3, ,, McMurdo Sound, 0–450 metres, 9 a.m.–5 p.m. Plankton.
,, 348. ,, 13, ,, Off Barne Glacier, McMurdo Sound, 200 fathoms (366 metres). Bottom fauna (mud).
,, 351. April 26–June 7, 1912, Hole in Ice between Cape Evans and Inaccessible Island, 205 metres. Plankton.
,, 355. Jan. 20, 1913, 77° 46′ S., 166° 8′ E., 300 fathoms (547 metres). Bottom fauna.

IV.—DESCRIPTIONS OF SPECIES.

Sub-order LOPHOGASTRIDA.

Family LOPHOGASTRIDAE.

Genus PARALOPHOGASTER, Hansen.

1. *Paralophogaster glaber*, Hansen.

P. glaber, Hansen, 1910, p. 16, pl. I, figs. 2*a–n*.

Occurrence.—Station 86, one, 13 mm.; Station 122, one immature; Station 127, seventeen, 7–11 mm.; Station 130, two; Station 139, nine, 14–18 mm.

All from north of New Zealand.

Remarks.—Hansen's description and figures are sufficient for the easy recognition of this interesting species, hitherto known only from the East Indian Archipelago.

Sub-order MYSIDA.

Family MYSIDAE, Dana.

Sub-family SIRIELLINAE, Norman.

Genus SIRIELLA, Dana.

2. *Siriella thompsonii* (H. Milne-Edw.).

Occurrence.—North and South Atlantic, Stations 31, 53, 58, 59, 61–65, 67–70. About 200 specimens, mostly immature.

New Zealand waters in the area between Three Kings Islands and the North Cape of New Zealand, Stations 75, 83–86, 89, 92, 93, 100, 101, 106, 108–110, 113, 120, 122, 126, 130. About 150 specimens.

This abundant and widely-distributed species occurred in thirteen hauls in the Atlantic, and nineteen hauls in New Zealand waters. At ten Atlantic stations and twelve New Zealand stations it was captured at the surface. Only one of the remaining hauls was made at a greater depth than 3 metres, namely, at Station 70, off the Azores, where the net was lowered to 12 metres.

On the journey out, thirty-three hauls of plankton were made in the Atlantic Ocean, all of them during daylight, and *S. thompsonii* occurred in only one. On the return journey through the Atlantic, thirty-one plankton gatherings were made, five by day, and twenty-six at night. *S. thompsonii* was captured in eleven of the night hauls, but not once by day.

Similarly, in the New Zealand area, seventy-one plankton gatherings were made, forty-six by day, and twenty-five by night. This species occurred in seven (or 15 per cent.) of the day hauls, and in twelve (or 48 per cent.) of those made during hours of darkness. Moreover, all the gatherings of plankton in which more than ten specimens of *S. thompsonii* were found, were night hauls. These facts, while showing that this species is a pelagic, oceanic and essentially surface form, would seem to indicate that it is more abundant at the surface during hours of darkness, and probably descends to greater depths during the daytime. A diurnal movement is thus suggested.

Distribution.—Very generally distributed in the tropical and sub-tropical waters of the world.

Previous records of this species for the oceanic waters in the neighbourhood of Australia and New Zealand are given by Sars (1885) for specimens taken by the "Challenger" on the voyage between Sydney and Wellington, and by Colosi (1918 and 1920) for specimens caught in Lat. 28° 20′ S., Long. 170° 5′ E.

3. *Siriella denticulata* (G. M. Thomson).

Mysis denticulata, G. M. Thomson, 1880, p. 1; 1881, p. 205, pl. VII, fig. 6; *Siriella denticulata*, G. M. Thomson, 1900, p. 482, pl. 33, figs. 1–5; Hutton, 1904; Thomson, 1913 and 1921; Tattersall, 1913.

Occurrence.—North of New Zealand. Station 85, one female, 10 mm.; Station 93,

four females, three males; Station 133, one male, three females; Station 135, about twenty; Station 136, one male, two females.

I have also examined specimens, kindly sent to me by Professor Chilton, from Hawkes Bay (coll. Hutchinson) and Ocean Beach (coll. Crosby Smith).

Remarks.—This material enables me to supplement Thomson's description, and to indicate the position of the species in relation to other Pacific forms. It belongs to Hansen's Group 1, but departs in some few points from his definition of this group. It, however, agrees with this group in the characters of the male pleopods and their pseudobranchial rami, and is thereby excluded from all the other groups. A brief description may be useful.

Frontal plate of the carapace only slightly produced into a broad, low triangular projection, of which the apex is bluntly pointed and its angle somewhat greater than a right angle. Beneath the frontal plate is a prominent pseudo-rostral process, which projects beyond the rostral plate. Eyes of moderate size, pigment black. Antennular peduncle with the first joint larger than the combined second and third. Antennal peduncle equal in length to the first joint of the antennular. Antennal scale equal in length to the antennular peduncle, three times as long as broad, outer margin terminated by a strong spine, beyond which the terminal lobe of the scale extends. Thoracic limbs stout, tarsus of the endopods two-jointed, the first joint short.

Last abdominal somite twice as long as the fifth. Telson one-third longer than the sixth abdominal somite, and equal in length to the proximal joint of the outer uropod, three times as long as broad at the base, proximal widened portion with from three to five strong spines on each side, distal part of the lateral margins having from fifteen to twenty spines, the proximal ones arranged regularly and increasing regularly in size, the distal ones arranged in two or three series of graded spines, apex of the telson with a single pair of prominent spines, between which are three equal spinules and a pair of plumose setae. Outer uropod one and a half times as long as the telson, proximal joint twice as long as the distal joint, its outer margin armed distally with from nine to eleven stout spines, which occupy slightly less than the distal half of the margin; distal joint twice as long as broad. Inner uropod extending half way between the apex of the telson and the tip of the outer uropod, its inner margin furnished with thirteen to seventeen spines extending from the statocyst to the tip.

Pseudobranchial rami of the first and fifth pleopods of the male straight, those of the second, third and fourth pleopods spirally twisted. Terminal setae of the third and fourth male pleopods unmodified. Males with a well-developed hirsute lobe on the antennules. Length of adult specimens of both sexes, 11 mm.

Among the species belonging to Hansen's Group 1, *S. denticulata* is distinguished by the greater length of the armed portion of the outer margin of the proximal joint of the outer uropods and the larger number of spines found there. It also has a greater number of stout spines on the proximal wider portion of the telson than any other of this group. It appears to be closely related to *S. watasei*, Nakazawa,

from Japan, but may be distinguished by its much shorter and more obtuse rostral plate.

Distribution.—Known only from New Zealand. It has been recorded from Otago and Lyttleton Harbours (Thomson) and Auckland Harbour (Tattersall). The present records extend its known range in New Zealand, but emphasise the fact that it is a littoral species not found far away from land. It is not an oceanic pelagic species in the same sense as *S. thompsonii.*

Sub-family GASTROSACCINAE, Norman.

Genus ANCHIALINA, Norman.

4. *Anchialina typica* (Kröyer).

A. typica, Hansen, 1910, p. 52, pl. VII, figs. 2*a–k*.

Occurrence.—Station 40, off Rio de Janeiro. One immature female, 3·25 mm.

Genus GASTROSACCUS, Norman.

5. *Gastrosaccus australis*, sp. nov. (Pl. I, figs. 7–9; pl. II, figs. 1–4.)

Occurrence.—North of New Zealand. Station 133, 135 and 136, over one hundred specimens, adult and immature of both sexes, 6–12 mm.

Description.—A species of the *G. spinifer* group. Carapace with a very short obtusely rounded rostral plate, much shorter than the eyes. Below and in front of the rostrum is a prominent pseudo-rostral process, triangular and acute in dorsal view, blunter in lateral view and somewhat recurved. No lobes or filaments on the posterior margin of the carapace.

Antennular peduncle with the basal joint longer than the sum of the two following joints; two prominent spines on the outer margin of the second joint.

Antennal peduncle extending to about one-third of the way along the distal joint of the antennular peduncle.

Antennal scale extending almost to the level of the distal margin of the second joint of the antennular peduncle, about three times as long as broad, increasing in breadth outwards, outer margin terminating in a strong spine, beyond which the apical lobe of the scale does not project.

Fifth abdominal somite with the median dorsal portion of the posterior margin produced into a short linguiform process, which, viewed laterally, looks spiniform and is recurved at the apex.

Tarsal joint of the endopod of the third to the eighth thoracic limbs divided into eight to twelve joints, nail feeble.

Pleopods of the male agreeing in essential points with those of *G. spinifer*. Both exopod and endopod of the second pair multiarticulate, but the exopod is slightly shorter than the endopod and somewhat twisted. Exopod of the third pair greatly elongate, the first joint moderately long, the succeeding eight joints quite short, tenth

joint longer and narrower than the ninth, eleventh and twelfth joints very long and narrow, the twelfth joint terminated by two short filaments.

Inner uropod slightly longer than the outer, with six distantly placed spines on the inner margin, the most distal one near the apex. Outer uropod with about thirteen spines on the outer margin.

Telson about two and a half times as long as broad, lateral margins armed with six spines, including the terminal spine on the apical lobes, fifth and sixth spines approximated, the remainder more distantly placed. Terminal spine about one-fifth of the length of the telson. Cleft about one-sixth of the entire length of the telson, about eighteen to twenty teeth on each side.

Length of adult specimens of both sexes, 12 mm.

Remarks.—The *spinifer* group of species of the genus *Gastrosaccus* is sharply marked off from the remaining species of the genus, by having the endopod of the third pleopods of the male normal in form and armature, and multiarticulate. It comprises the following eight species:—*G. spinifer* (Goës), *G. sanctus* (van Beneden), *G. muticus*, Tattersall, *G. simulans*, Tattersall, *G. kojimaensis*, Nakazawa, *G. dunckeri*, Zimmer, *G. kempi*, Tattersall, and the present species.

Of these, *G. spinifer*, *G. muticus* and *G. simulans* have the posterior margin of the carapace provided with a fringe of filaments.

G. sanctus, *G. kojimaensis* and *G. dunckeri* have a pair of forwardly directed lobes on the posterior margin of the carapace.

G. kempi and *G. australis* are without lobes or filaments on the posterior margin of the carapace.

G. australis may be distinguished from *G. kempi* by the lobe on the dorsal posterior margin of the fifth abdominal somite, by the fewer spines on the lateral margin of the telson and the absence of subsidiary spines between the larger spines of the telson, a feature in which *G. kempi* is unique.

All the species of this group are shallow-water littoral forms, in contrast with the *normani* group of species, which are pelagic and off-shore forms.

Sub-family MYSINAE.

Tribe ERYTHROPINI.

Genus EUCHAETOMERA, G. O. Sars.

6. *Euchaetomera typica*, G. O. Sars.

E. typica, G. O. Sars, 1884, p. 42; 1885, p. 211, pl. 37, figs. 1–20; Hansen, 1912, p. 199, pl. 2, figs. 5*a–e*; Zimmer, 1914, p. 373; *Brutomysis voytii*, Chun, 1896, p. 179, taf. 15 (*nec* Lo Bianco, 1901 and 1904 = *E. tenuis*); *Euchaetomera limbata*, Illig, 1906, p. 293, fig. 10; *Euchaetomera Sennae*, Colosi, 1918, p. 7; 1920, p. 239, figs. 4*a–4c*.

Occurrence.—North of New Zealand. Station 80, one immature male, 5 mm.; Station 130, one immature, 4 mm.; Station 139. one ♀, damaged, *ca.* 7 mm.

Remarks.—To the many synonyms of this species, I think must be added *E. sennae*, Colosi. The type specimen measures only 4 mm., and the species is said to differ from *E. typica* : (1) by the absence of a prominent spine on the outer margin of the antennal scale ; (2) by the shorter and more rounded form of the telson ; and (3) by the relative lengths of the inner and outer uropods. Zimmer (1914) has pointed out that the first difference is due to immaturity. With this opinion I am in complete agreement. The smallest specimen in this collection measures 4 mm. in total length, and agrees substantially with Colosi's diagnosis of *E. sennae*. But close comparison with *E. typica* has led me to believe that all the differences between the two forms will be found to disappear with growth. Evidence that the non-development of the spine on the outer margin of the antennal scale is a juvenile character is provided by Hansen's species *E. pulchra*, which is described from an immature specimen 5 mm. long. On one side the antennal scale is provided with a prominent spine on the outer margin, and on the other side the scale is more or less like that described and figured for *E. sennae*. With this proof, the first and most serious difference between *E. typica* and *E. sennae* disappears, and the other two differences are much more readily explained on the same grounds.

Distribution.—Widely distributed in both the Atlantic and Pacific Oceans, but the present records represent the most southerly area in which the species has so far been found.

7. *Euchaetomera oculata*, Hansen.

E. oculata, Hansen, 1910, p. 66, pl. X, figs. 4*a–c* ; Tattersall, 1911, p. 125.

Occurrence.—North of New Zealand. Station 80, one immature, 4 mm. ; Station 130, one female, 8 mm.

Remarks.—The larger specimen is considerably damaged, and the identification of both must be considered doubtful. In the form of the eyes and in the degree of development of the rostral plate they appear to agree with *E. oculata* rather than with any of the closely allied species *E. tenuis*, *E. glyphidophthalmica* or *E. plebeja*.

Distribution.—East Indian Archipelago (Hansen) ; Indian Ocean (Tattersall). The present records therefore indicate a wide extension of its known geographical range.

Genus PSEUDOMMA, G. O. Sars.

8. *Pseudomma belgicae* (Hansen, MS.), Holt & Tattersall.

Pseudomma belgicae, H. & T., 1906, p. 8 ; Tattersall, 1908, p. 27, pl. VI, figs. 1–8 ; Hansen, 1908, p. 12, pl. II, figs. 2*a–c* ; Hansen, 1913, p. 11, pl. 1, figs. 3*a–b* ; Zimmer, 1914, p. 389 ; Hansen, 1921, p. 2.

Occurrence.—Antarctic, Station 314. One male and one female, 26 mm.

Remarks.—Both these specimens appear to be adult. The male, however, has no brush of setae on the antennulary process. This may be due to the fact that they have been broken off during the processes of capture and preservation. The

specimens are considerably mutilated, and nearly all the setae on the appendages are missing. The pleopods of the male do not appear to be any longer than those described by Hansen in this species.

Distribution.—Circumpolar, having been taken by the "Discovery" and the "Belgica," and by the Swedish and German Antarctic Expeditions. The longitude given for this species in my "Discovery" report is incorrect, and 185° E. should read 165° E.

Genus AMBLYOPS, G. O. Sars.

9. *Amblyops tattersalli*, Zimmer. (Pl. I, figs. 3–4.)

A. tattersalli, Zimmer, 1914, p. 390, taf. XXIII, figs. 13–16.

Occurrence.—Antarctic, Station 355, one female, broken, *ca.* 30 mm.

Remarks.—The single specimen available is somewhat fragmentary, but agrees substantially with Zimmer's description and figures. The eyes are microscopically spinulose, especially on the outer distal corner. The papilliform process on the eye is rather stouter than shown by Zimmer, and in lateral view is somewhat curved and acute. A central mass of nerve cells is clearly seen at the base of the process. The outer spine of the antennal scale bears three subsidiary spines, not teeth. There are twenty-four spines on the telson.

Distribution.—Known only from two specimens obtained at the winter quarters of the German Antarctic Expedition in 66° 2′ S., 89° 38′ E., 385 metres.

Tribe LEPTOMYSINI.

Genus PROMYSIS, Dana, 1850.

= *Uromysis*, Hansen, 1910.

The genus *Promysis* was established in 1850 by Dana for a mysid captured in the China Sea, 450 miles N.E. of Singapore. The genus with its type and only species, *P. orientalis*, Dana, has since remained obscure. Hansen (1910), however, has described a mysid under the name *Uromysis armata*, which, it seems to me, must clearly be referred to Dana's genus. The form of the telson and the peculiar nature of the armature of the inner uropod, as shown in Dana's figures, agree essentially with the same parts as figured by Hansen, while the form of the antennal scale is likewise the same in both species. *Uromysis*, Hansen, must, in my opinion, be cancelled as a synonym of *Promysis*. It is extremely probable that *Promysis orientalis* and *P. armata* are synonyms, but there are discrepancies in the published descriptions and figures, which, without an examination of the type specimens of both, cannot be ignored, and it is best, at present, to regard each species as valid. *P. orientalis* differs from *P. armata*, as far as can be seen, in the following points—(1) it is double the size, (2) the antennal scale appears to be much longer, (3) the details of the arrangement of the spines on the telson are different, e.g. the most distal spine on the lateral margin is situated some distance from the apex, whereas

in *P. armata* it is actually at the apex, (4) the uropods are more unequal in length. Dana does not mention or figure the prominent spine on the inner uropod, which is so characteristic a feature of Hansen's species. These differences are small, and may well disappear in the light of an examination of Dana's type, if it is available. Hansen's species was obtained in the waters of the East India Archipelago, and Zimmer (1915 (2)) and Colosi (1918 and 1920) have also recorded it from the same area. The geographical distribution of the two species is therefore not inconsistent with their specific identity.

10. *Promysis atlantica*, sp. nov. (Pl. I, figs. 5–6.)

Occurrence.—Off Rio de Janeiro, Station 39, one female, immature, 4 mm.

Description.—Agreeing closely with the description and figures of *P. armata* (Hansen), differing only in the following points :—

1. The eyes are longer in proportion to their breadth ($2\frac{3}{4} : 1$), and the cornea is only half as long as the stalk. In *P. armata*, female, the eye is one and a half times as long as broad, and the cornea is only slightly shorter than the stalk.
2. The rostral plate is shorter and more broadly rounded.
3. The antennal scale extends only to the middle of the third joint of the antennular peduncle. In *P. armata* it is slightly longer than the antennular peduncle.
4. The cleft of the telson is equal to one seventh of the total length of the telson. In *P. armata* it is one quarter.
5. There are eighteen spines on the lateral margin of the telson, confined to the distal three-fifths of the margin. In *P. armata* there are twelve spines occupying the distal five-sixths of the margin. In *P. atlantica*, therefore, there is a proportionally longer part of the margins of the telson unarmed, and the spines are more numerous and more crowded.
6. The endopod of the uropods is at least as long as, even slightly longer than the exopod. It bears sixteen spines on its inner margin, the two distal ones longer than the rest, slightly curved and situated at the apex. In *P. armata* the endopod of the uropods is slightly shorter than the exopod, though the arrangement of the spines is closely similar to that in *P. atlantica*.

P. atlantica bears a prominent spiniform protuberance on the outer face of the inner uropod similar to that in *P. armata*, but perhaps blunter.

The discovery of an Atlantic species of this genus is noteworthy. While it appears to be distinct from the Indo-Pacific species, there can be no question that it belongs to the same genus, which, therefore, presents an interesting case of discontinuous distribution. The genus is presumably pelagic and this may explain its wide

distribution, but its apparent discontinuity will, no doubt, be explained away by future faunistic work.

Genus MYSIDETES, Holt & Tattersall, 1906.

= *Metamysidella*, Illig, 1906.

11. *Mysidetes posthon*, Holt & Tattersall.

Mysidetes posthon, H. & T., 1906, p. 10; Tattersall, 1908, p. 33, pl. VII, figs. 1–13; Hansen, 1913, p. 17, pl. II, figs. 2*a–c*; Zimmer, 1914, p. 402, taf. XXV, fig. 36; Hansen, 1921, p. 3; *M. similis*, Zimmer, 1914, p. 402, taf. XXV, figs. 37–42; ? *M. illigi*, Zimmer, 1914, p. 404, taf. XXVI, figs. 47–49.

Occurrence.—Antarctic. Station 314, two males, three females, 28 mm.; Station 338, one male, posterior end only; Station 348, one head, three tails; Station 351, one immature, 9 mm.

Remarks.—Hansen (1921) has shown that this species is subject to considerable variation, in consequence of which Zimmer's species, *M. similis*, cannot be maintained. With this opinion I am in agreement. Zimmer distinguishes *M. similis* from *M. posthon* by the following characters:—(1) In *M. similis* the rostrum is longer than in *M. posthon*, its margins more strongly upturned, and it partially covers the eyestalks, whereas in *M. posthon* the latter are not covered by the rostrum. (2) The upper of the two spines on the outer part of the basal joint from which the scale springs is much shorter than the lower in *M. similis*, whereas in *M. posthon* the spines are more or less equal in size. Hansen has already dealt sufficiently with the variation in the shape and form of the rostral plate, and shown that that character is not constant enough in the species to form a basis for separation. The "Terra Nova" specimens are all badly mutilated, and it is impossible to examine critically the form of the rostral plate, but so far as I can make out it is in all cases similar to *M. posthon*, short and not covering the eyestalks. With regard to the second character Hansen has likewise shown that there is considerable variation. In the present specimens, three conform more or less to the condition described for *M. similis* and four to *M. posthon*.

The specimen from Station 351, which I regard as a young stage of *M. posthon*, presents one or two interesting features. There is a gap in the armature of the lateral margins of the telson, five or six spines on the proximal widest portion of the telson being separated by an unarmed portion from the distal series. Such a condition has been described by Illig in *M. kerguelensis* and by Zimmer in *M. illigi*, and considered by these authors as a specific character. I regard it as evidence of immaturity. Traces of such a gap can be seen in much larger specimens, and only in fully grown specimens is the series of lateral spines on the telson apparently uninterrupted. The spines on the telson appear to be formed in two groups, a proximal group of four or five and a distal series which develops from the posterior end and extends anteriorly, increasing in number, with growth. In fully grown

specimens the proximal and distal series meet. The distal spines are thus older spines than the more proximal ones (except, of course, the original proximal series). *M. kerguelensis* is described as 10 mm. long and *M. illigi* as 13 mm., the latter, at any rate, admittedly immature. If my suggestion is correct, the armature of the telson in both these species must be regarded as evidence of their immaturity and not as a valid specific character. Both these species are thereby brought into much closer relation to *M. posthon*, but their real affinity cannot be established until larger specimens are examined. As far as can be seen at present, *M. kerguelensis* is distinguished by the much shorter antennal scale which is only very slightly longer than the antennular peduncle. In the young specimen here ascribed to *M. posthon*, the proportions of the antennal scale are as in adult specimens of that species.

M. illigi is further distinguished from *M. posthon*, according to Zimmer, by the larger and more produced rostral plate, by the small upper and large lower spines on the basal joint from which the scale springs, and by the greater comparative length of the inner uropod. In the last character my young specimen of *M. posthon* agrees with *M. illigi*. In the other two characters it agrees with adult *M. posthon*. In view, however, of Hansen's demonstration that these characters are very variable and cannot be relied on as specific marks, it would appear that *M. illigi* is founded on a young specimen of *M. posthon*. I think this is highly probable, and provisionally, at any rate, I would refer *M. illigi* to the synonymy of *M. posthon*.

M. hanseni, the third of the new species of *Mysidetes* described by Zimmer, appears to be distinguished by the much shallower cleft of the telson and its round apical lobes, and by the absence of spines on the inner margin of the inner uropods.

Distribution.—*M. posthon* has been obtained by both British Antarctic Expeditions, by the "Belgica," the "Gauss," and the Swedish expedition. I have seen specimens also in the Paris Museum which were obtained by Dr. Charcot during his 1909 expedition. The species is therefore circumpolar in range.

12. *Mysidetes brachylepis*, sp. nov. (Pl. I, figs. 1–2.)

Occurrence.—Antarctic, Station 331. One adult female, 17 mm.

Description.—The single specimen is much mutilated. There remain no appendages except the inner uropod of one side. Most of the setae from the antennal scale and most of the spines from the telson are broken off, and the specimen is generally fragmentary. But the essential characters of the rostrum, eyes, antennal scale, and telson can be made out, and these are so distinct that it is possible to institute a new species with some degree of confidence.

Carapace produced anteriorly into a moderately long triangular plate extending forward as far as the distal margin of the eyes, angle of the apex acute, but the tip bluntly rounded.

Process on the outer distal corner of the basal joint of the antennular peduncle shorter than the outer margin of the second joint.

Eyestalks minutely hispid, eyes not broader than the stalks, of moderate size, pigment light brown.

Antennal scale much shorter than the antennular peduncle and equal in length to its own peduncle, three times as long as broad, both margins convex.

Sixth abdominal somite almost one and a half times as long as the fifth.

Telson one and a half times as long as the sixth abdominal somite, two and a half times as long as broad at the base, apex cleft about one-third the length of the telson; cleft having each lateral margin armed with twenty-seven closely set spines; apical lobes bluntly pointed and bearing one stout spine; distal two-thirds of the lateral margins of the telson furnished with about twenty-eight short, regularly arranged spines, increasing slightly in length on the more distal portions of the margins.

Inner uropod equal in length to the telson, inner margins furnished with a row of spines about twenty-seven in number, extending from the statocyst to the apex.

The type specimen is a female with two pairs of incubatory lamellae fully developed, and measures 17 mm.

Remarks.—This species is most closely allied to *M. crassa*, Hansen, 1913, but differs from it in its larger size, much shorter antennal scale and in the larger telson more deeply cleft, and armed with many more spines both in the cleft and on the lateral margins. It cannot be confused with any other species.

Genus TENAGOMYSIS, G. M. Thomson, 1900.

= *Theganomysis*, Zimmer, 1918.

This genus for many years remained known only by the type species *T. novae-zealandiae*, Thomson. In 1918 I described a second species, *T. tenuipes*, taken by the Australian Antarctic Expedition at Carnelly Harbour, Auckland Islands. In the same year Zimmer recorded the genus under the misspelling *Theganomysis*, from the Bay of Plenty, but the specimens were so defective that a detailed description was impossible. No other species has been described and, in fact, the only records of the type species subsequent to Thomson's original record are some by Chilton (1906), from L. Waikare in the North Island.

The collections made by the "Terra Nova" are rich in specimens of this genus. I find six species in the material, all new to science. In addition, I am allowed, by the kindness of Professor Chilton, to include a description of another new species collected by him. With the two species already described, the genus will now include nine species. I was not able to identify any of the "Terra Nova" species with the type and, as in the light of my examination of this material, it became evident that Thomson's description was not adequate to identify the type species, I wrote to Mr. Thomson and to Professor Chilton asking for specimens. Mr. Thomson, through Professor W. B. Benham, very kindly sent me the types of *T. novae-zealandiae* and other specimens

from further recorded localities; and Professor Chilton kindly placed all his material at my disposal. It is, therefore, possible for me to add to this report a description of *T. novae-zealandiae*, and to make my account of the whole genus complete by including a description of *T. tenuipes* as well.

In 1918 I gave a new definition of the genus, which, however, now requires modification in one or two points. In one of the new species described below, only the last thoracic somite is left exposed by the carapace, and the endopod of the fourth pair of pleopods in the male may have only one instead of two modified setae. With these emendations the diagnosis given in 1918 may be allowed to stand. The genus, so far as at present known, is peculiar to New Zealand, where, however, it appears to be very abundant and widespread.

A key to the nine species of the genus follows, and may be useful for the quick determination of species. Two main groups of species can be distinguished, one in which the antero-lateral angles of the carapace are produced into acute spines and the other in which they are rounded.

Key to the known species of the Genus *TENAGOMYSIS*.

A. Antero-lateral angles of the carapace produced into acute spines.
  (1) Antennal scale about twice as long as the antennular peduncle.
    (*a*) Rostrum rounded; antennal scale five times as long as broad; telson with 12–14 spines on the lateral margins. *T. novae-zealandiae*, G. M. Thomson.
    (*b*) Rostrum obtuse with a blunt apex; antero-lateral angles of the carapace set back; a prominent spine on the body of the mandibles external to the attachment of the palps; antennal scale ten times as long as broad; telson with 16–18 spines on the lateral margins. *T. chiltoni*, sp. nov.
  (2) Antennal scale barely extending beyond or even only equal in length to the antennular peduncle.
    (*a*) Rostrum sub-acute; eyes short and normal in shape; antennal scale three and a half times as long as broad; telson with nine spines on the lateral margins. *T. similis*, sp. nov.
    (*b*) Rostrum evenly rounded; eyes long and narrow; antennal scale six times as long as broad; telson with 12–14 spines on the lateral margins. *T. macropsis*, sp. nov.

B. Antero-lateral angles of the carapace rounded.
  (1) Inner and outer uropods subequal in length.
    Rostrum small, obtuse; eyes moderately large and normal in form; antennal scale four times as long as broad; antennular peduncle equal in length to the antennal, both robust in form; telson with 18–20 spines on the lateral margins; tarsus of the thoracic legs composed of two to three joints. *T. robusta*, sp. nov.
  (2) Outer uropod considerably longer than the inner uropod.
    (*a*) Antennal scale equal in length to the antennular peduncle; rostrum short and obtuse; eyes small and normal; antennal scale eight times as long as broad; last joint of the antennular peduncle almost as long as the first; telson with 26–28 spines on the lateral margins; generally a slender species. *T. thomsoni*, sp. nov.
    (*b*) Antennal scale at least one quarter longer than the antennular peduncle.
      (i) Rostrum greatly elongated in the form of a triangular plate with an acutely pointed apex, extending to the distal end of the first joint of the antennular peduncle. Eyes normal in shape; antennal scale six and a half times as long as broad, with an acutely pointed apex; telson with 26 spines on each margin. *T. producta*, sp. nov.

(ii) Rostral plate not longer than one third of the first antennular joint, apex obtuse.
(*a*) A small species; antennal scale seven times as long as broad; tarsus of the thoracic limbs composed of four joints; telson with 16–18 spines on its margins. *T. scotti*, sp. nov.
(*b*) A large slender species; antennal scale eleven times as long as broad; tarsus of the thoracic limbs composed of nine to fourteen joints; telson with 36 spines on its margins. *T. tenuipes*, W. M. T.

13. *Tenagomysis novae-zealandiae*, Thomson.

T. novae-zealandiae, Thomson, 1900, p. 484, pl. 33, figs. 6–8, pl. 34, figs. 9–17; Hutton, 1904, p. 256; Chilton, 1906; Thomson, 1913; Thomson, 1921, p. 108.

Occurrence.—Not taken by the "Terra Nova," but specimens from Brighton (labelled types) and Waikouaiti River (coll. C. Chilton) were kindly sent me by Professor W. B. Benham, F.R.S.

Description.—Carapace hardly at all produced to form a rostral plate, anterior margin between the eyes evenly rounded, antero-lateral angles produced into an acute spine.

Eyes not more than twice as long as broad, cornea hemispherical, occupying almost half the eye in dorsal view.

Antennal scale nearly twice as long as the antennular peduncle, five times as long as broad, lanceolate in shape, setose all round, terminal joint distinct, a prominent spine on the basal joint from which the scale springs.

Antennal peduncle extending to the level of the distal joint of the antennular peduncle.

Tarsal joint of the third to the eighth thoracic limbs composed of three joints, in addition to the terminal dactylus.

Telson shorter than the sixth abdominal somite, and about half as long as the outer uropod, cleft for about one-fifth of its length, cleft armed with a pair of plumose setae, and twenty-two to twenty-four teeth on each side, lateral margins of the telson armed with from twelve to fifteen short stout spines extending throughout their entire length.

Inner uropod one and a half times as long as the telson, lower inner margin with a row of spines about twenty in number, extending from the statocyst to about one-quarter of the length of the uropod from the apex, the proximal spines closely set, the distal ones more distantly separated.

Outer uropod one-third longer than the inner.

Length of an adult female, 8 mm.

Remarks.—The above particulars have been taken from the specimens labelled "types," from Brighton, near Dunedin. The length of the largest specimen is, however, only 8 mm., whereas Thomson gives the length of adult females as from 10–16 mm. A slight error may here be noticed in Thomson's description of the telson. He says, "Telson short, only about half as long as broad." The word "again" appears to have been omitted, and the description should read, "Telson short, only about half as long *again* as broad."

The only adult male among the specimens submitted to me is defective as regards the fourth pleopods, so I am unable to indicate the exact nature of the armature of the exopod.

The species is characterised by the acute spine at the antero-lateral corners of the carapace, the proportions of the antennal scale and its length relative to the antennular peduncle, and the short form of the telson.

Distribution.—Kaikorai lagoon (brackish water) estuary of the Waikouaita River, rock pools at Brighton, both localities near Dunedin (Thomson); Lake Waikare (Chilton, 1906); mouth of a little stream near Brighton, in water almost fresh to the taste though close to the sea, and affected by extra high tides (Chilton, 1906). All these records indicate that this species is an estuarine form, capable of living in almost fresh water and having, in fact, a habitat very similar to that of *Neomysis integer* in British waters.

The specimens recorded by Thomson from the Bay of Islands, 8 fms., which, through the courtesy of Professor Benham, I have been allowed to examine, do not belong to this species but to *T. similis*, one of the new species described below.

14. *Tenagomysis chiltoni*, sp. nov. (Plate II, figs. 5–8.)

Occurrence.—Tidal inlet, Parakai, 19–12–18, abundant (C. Chilton). The specimens sent to me are three females, 8–10 mm.

Not collected by the "Terra Nova."

Description.—Carapace larger than in most of the other species of the genus, leaving only the last thoracic somite exposed. Antero-lateral angles of the carapace produced into acute spines. Frontal plate short, obtuse and bluntly pointed, the proximal portion of the antero-lateral margin sloping away much more abruptly than the distal portion, so that the antero-lateral angles of the carapace are displaced rather far back. The whole appearance in dorsal view can best be judged from the figure accompanying this description.

Eyes of normal appearance, about twice as long as broad, the cornea occupying the distal half.

Antennal scale very long, extending beyond the antennular peduncle for at least half its length, ten times as long as broad, narrowly lanceolate in shape, setose all round, distal joint distinct, spine on the outer distal corner of the joint from which the scale arises very prominent.

There is a prominent acute spine on the body of the mandible immediately outside the attachment of the palp. I have not noticed this feature in any of the other species.

The thoracic limbs are, on the whole, short and robust, the anterior ones more so than the posterior. The tarsal joint in all is composed of four short joints, in addition to which the nail is distinct and robust. The outer distal corner of the basal joint of the exopod is acute.

Sixth abdominal somite more than twice as long as the fifth.

Telson about as long as the sixth abdominal somite and one and a quarter times as long as broad at the base, cleft for one quarter of its length ; cleft armed with two long plumose setae, a short proximal portion of each lateral margin of the cleft unarmed with teeth, the remainder of these margins with a dense row of closely set, comb-like teeth ; lateral margins of the telson armed with about 16–18 spines distributed throughout the whole length, the proximal three spines on each side longer than the others, the distance between the terminal spine and the one proximal to it greater than the distance between any other adjacent spines, terminal spine about one-twelfth of the entire length of the telson.

Inner uropod one and a third times as long as the telson, with a row of closely set spines, about 32 in number, on the inner margin, the spines increasing in size distally, the most distal spine situated a short distance from the apex of the uropod.

Outer uropod one and three quarters of the length of the telson.

Length of adult females, 10 mm.

I have not seen males belonging to this species.

Remarks.—This species is easily recognised by the extreme length of the antennal scale, the peculiar shape of the frontal plate and the greatly set-back position of the antero-lateral angles, and the form of the telson and uropods. The acute spine on the mandibles may be regarded as an additional specific character. It is present on all three specimens I have examined, and is probably characteristic of the species. I have pleasure in naming the species after its discoverer, Professor C. Chilton, to whose courtesy I am indebted for the opportunity of examining and describing it.

15. *Tenagomysis similis*, sp. nov. (Plate II, figs. 9–13.)

Occurrence.—" Terra Nova," Bay of Islands, August 1912, numerous; " Terra Nova," Station 136, four ; Ocean Beach, collected by Crosby Smith, four females, two males, 6–7 mm., from Professor Chilton ; Bay of Islands, two females, 5 mm. (recorded as *T. novae-zealandiae* by Thomson, 1900), from Professor W. B. Benham.

Description.—Carapace short, leaving the last three thoracic somites exposed, produced in front to form a short triangular rostral plate with the apex acute, almost spiniform ; antero-lateral angles produced into acute spines ; a prominent pseudo-rostral process below the rostral plate and almost as long as the latter.

Eyes not quite twice as long as broad, cornea hemispherical, occupying half the eye in dorsal view.

Antennal scale extending slightly beyond the distal end of the antennular peduncle, three and a half times as long as broad, ovate-lanceolate in shape, setose all round, terminal joint large, a prominent spine on the outer corner of the basal joint from which the scale springs.

Antennal peduncle extends to the level of the middle of the third joint of the antennular peduncle.

Tarsal joint of the third to the eighth thoracic limbs composed of only two joints in addition to the terminal dactylus which is well developed.

Sixth abdominal somite one and a half times as long as the fifth.

Telson shorter than the sixth abdominal somite (about two-thirds) and about three-fifths of the length of the inner uropod, cleft about one fifth of its length; cleft armed with a pair of plumose setae at the apex, extending beyond the terminal spines, and with about twelve teeth on each side; lateral margins of the telson armed with from nine to twelve spines, including the terminal ones, rather widely spaced and approximately equidistant, the three proximal spines longer than the remainder except the terminal ones, which are one-eighth of the length of the telson.

Inner uropod one and two thirds of the length of the telson, inner margin with a row of spines, about ten in number, the first five situated in the region of the statocyst, the remainder distantly placed along the margin, the most distal spine about one quarter of the length of the uropod from the apex.

Outer uropod one quarter longer than the inner.

Exopod of the fourth pleopods of the male with a long modified seta on each of the antepenultimate and penultimate joints.

Length of an adult female, with well-developed brood lamellae and eggs in the brood pouch, 7 mm.

Remarks.—This species is very closely allied to *T. novae-zealandiae*, but is a smaller species and differs in the characters of the rostral plate, the shorter and the relatively broader antennal scale, and the fewer spines on the margins of the telson and its cleft and on the inner uropods.

The specimens recorded by Thomson from the Bay of Islands as *T. novae-zealandiae* belong to this species, which appears also to differ from the former in its more purely marine habit.

16. *Tenagomysis macropsis*, sp. nov. (Plate III, figs. 1–12.)

Occurrence.—"Terra Nova," North of New Zealand. Station 132, one; Station 133, one; Station 135, eight; Station 136, one; Station 148, one; Station 242, numerous, immature. Ocean Beach, collected by Crosby Smith, January, 1904, one; Akaroa, collected by H. Suter, one; from Professor C. Chilton.

Description.—Carapace short, leaving the last three thoracic somites exposed, roundly arched in front without definite rostral projection, antero-lateral angles produced into acute spines, no pseudo-rostral process.

Eyes in the male about three times as long as broad, the cornea occupying the distal third of the eye, extending to the distal end of the antennular peduncle and equal to the antennal peduncle. In female and immature specimens the eye is somewhat longer and narrower, and the cornea occupies only the distal quarter of the whole eye.

Antennal scale equal in length to the antennular peduncle, six times as long as

broad, ovate lanceolate in shape, setose all round, terminal joint distinct, a prominent spine on the outer distal corner of the joint from which the scale springs.

Antennular peduncle more slender in the female than in the male; antennal peduncle equal in length to the first two joints of the antennular peduncle.

Tarsal joint of all the thoracic limbs composed of three joints, the first longer than the last two combined, third slightly shorter than the second, dactylus rudimentary; the thoracic limbs are long and slender and well provided with fine setae. The outer corner of the basal joint of the exopod is rounded.

Sixth abdominal somite twice as long as the fifth.

Telson about three-quarters of the length of the sixth abdominal somite, two-thirds of the length of the inner uropod and half the length of the outer uropod, cleft for about a quarter of its length, about one and a half times as long as broad as its base. Cleft armed with a pair of plumose setae and with a regular series of teeth about thirty in number on each side. Lateral margins armed with about 12–14 spines arranged more or less regularly, the proximal spines somewhat larger and stouter than the distal ones, except the terminal spines which are about one-tenth of the length of the telson.

Inner uropod one and a half times as long as the telson with a group of 15–20 closely set spines on the inner margin, commencing slightly distal to the statocyst, and ending about one quarter of the length of the uropod from the apex.

Outer uropod twice as long as the telson and one-third longer than the inner.

Exopod of the fourth pleopod of the male longer than the endopod with a strong modified seta on each of the antepenultimate and penultimate joints, terminal joint small and furnished with two fine setae.

Length of adults of both sexes, 9 mm.

Remarks.—The male differs from the female, in addition to the usual secondary sexual characters, in having the eye rather shorter and stouter and in the stouter form of the antennular peduncle. The anterior end of this species recalls somewhat strongly that of the common *Mesopodopsis slabberi* (v. Ben.) of European waters in the form of the eyes, the roundly arched frontal plate, and the acute antero-lateral angles of the carapace. It is distinguished from all other species of the genus by the combination of these three characters in addition to the shape and armature of the telson.

17. *Tenagomysis robusta*, sp. nov. (Plate IV, figs. 1–5.)

Occurrence.—Station 135, north of New Zealand, one male, one female, two immature.

Description.—A small robust species in which the carapace leaves the last thoracic somite exposed, antero-lateral corners of the carapace rounded, front margin of the carapace produced into a very short obtusely pointed rostral plate.

Eyes moderately large, cornea occupying about half of the whole eye, pigment black, eyestalk minutely hispid on the anterior surface.

Antennular peduncle short and stout, outer distal corner of the basal joint produced into a lobe almost as long as the second joint and tipped by three setae.

Antennal peduncle equal in length to the antennular.

Antennal scale longer than the antennular peduncle, extending forward in the male to the level of the anterior end of the hirsute lobe, ovate-lanceolate in shape, setose all round, four times as long as broad, terminal joint distinct, a prominent spine on the outer corner of the basal joint from which the scale arises.

Tarsal joint of the thoracic limbs divided into two articulations in the third pair, into three articulations in the remaining pairs, nail in all the limbs distinct and moderately long.

Sixth segment of the abdomen nearly twice as long as the fifth and only slightly longer than wide.

Telson as long as the sixth abdominal somite and one and a half times as long as broad at the base, cleft for one-fifth of its length; cleft armed with a pair of plumose setae and with 8–11 teeth on each margin; lateral margins of the telson armed with 18–20 spines more or less regularly placed throughout the entire margin, the terminal spine about one-tenth of the length of the telson.

Inner and outer uropods subequal in length, about one and a half times as long as the telson, inner uropod with a row of closely set spines on the inner margin, about 30 in number, extending from the statocyst to the apex.

Exopod of the fourth pleopods of the male with a modified seta on each of the antepenultimate and penultimate joints, terminal joint small, bearing one long seta.

Length of an adult male, 7 mm.

Remarks.—This species is distinguished by its small robust form, the relative length and stoutness of the antennular and antennal peduncles and their relative proportions, the antennal scale, the small obtuse rostrum, the shape and armature of the telson and the subequal uropods.

18. *Tenagomysis thomsoni*, sp. nov. (Plate IV, figs. 12–16.)

Occurrence.—North of New Zealand. Station 128, one. Stations 132–133, 135–136, many.

Description.—Carapace leaving the last two thoracic somites exposed, antero-lateral corners rounded, front margin produced slightly as a low obtuse-angled triangle with the apex broadly rounded and the sides almost straight, no pseudo-rostral process

Eyes normal in form, rather small, cornea rather less than one-half of the complete eye, pigment black.

Antennal scale equal in length to the antennular peduncle, narrowly lanceolate in shape, setose all round, eight times as long as broad, tip obtuse, distal joint distinct, an inner and outer spine on the basal joint which carries the scale.

Terminal joint of the antennular peduncle relatively longer than in any of the other species almost as long as the basal joint

Antennal peduncle shorter than the first joint of the antennular.

Thoracic limbs long and slender, tarsal joint divided into five articulations in addition to a long, slender and distinct dactylus; outer distal corner of the basal joint of the exopod without a spine.

Sixth abdominal somite slightly more than twice as long as the fifth.

Telson four-fifths of the length of the sixth abdominal somite, and twice as long as broad at its base, cleft for one-fifth of its length; cleft armed with two plumose setae and with about 27 teeth on each margin; lateral margins of the telson armed throughout their entire length by about 26–28 spines, the three proximal ones longer than the succeeding ones except the terminal spines.

Inner uropod one and a quarter times as long as the telson, with about 32 spines on its inner margin extending from the statocyst to the apex, the proximal spines closely set, the distal five or six more distantly placed.

Outer uropod one and three-quarter times as long as the telson and one-third longer than the inner.

Exopod of the fourth pair of pleopods of the male with a strong modified seta on the antepenultimate and penultimate joints, the terminal joint small and furnished with two small setae.

Length of adults of both sexes, 8 mm.

Remarks.—This species is distinguished from *T. scotti* by the shorter antennal scale, longer terminal joint to the antennular peduncle, smaller eyes, almost obsolete rostrum, the number of spines on the margins of the telson and its cleft, and the exopod of the fourth pleopods of the male. It is, moreover, a littoral species.

19. *Tenagomysis producta*, sp. nov. (Plate III, figs. 13–18.)

Occurrence.—Sandy pool, Bay of Islands, New Zealand, five males and five females, 10–12 mm.

Description.—A large robust species with the carapace leaving only the last thoracic somite uncovered. Front margin of the carapace produced into a long acute-angled triangular rostrum with sharply pointed apex extending to the distal end of the first joint of the antennular peduncle, antero-lateral angles of the carapace rounded, no pseudorostral process.

Eyes large, normal, cornea occupying slightly less than the distal half of the complete eye, pigment black.

Antennal scale extending for at least half its length beyond the distal end of the antennular peduncle, lancet-shaped, setose all round, six and a half times as long as broad, apex acute, almost spiniform, distal joint short but distinct, an outer and an inner spine on the basal joint from which the scale springs.

Antennal peduncle extends only slightly beyond the distal end of the second joint of the antennular peduncle.

Tarsal joint of the thoracic limbs divided into four articulations in the third

pair and five in the eighth, nail distinct, outer corner of the basal joint of the exopod rounded.

Sixth abdominal somite one and three quarter times as long as the fifth.

Telson slightly longer than the sixth abdominal somite, and more than twice as long as broad at the base, cleft for about one-quarter of its length; the cleft armed with two plumose setae and with about 26 teeth on each margin; lateral margins of the telson armed with 26 spines more or less regularly arranged along their entire length, the terminal spines not very much larger than the remainder.

Inner uropod about one-fifth longer than the telson, with about 15 spines on the inner margin extending from the statocyst almost to the apex, proximal spines placed closer together and smaller in size than the distal spines.

Outer uropod one-third longer than the telson and conspicuously broader than in most of the other species.

Exopod of the fourth pair of pleopods of the male with a strong modified seta on each of the antepenultimate and penultimate joints, terminal joint small with two long single setae.

Length of adults of both sexes, 12 mm.

Remarks.—This is one of the most distinct of the species of the genus. The long acute rostrum and the spiniform apex to the antennal scale are quite unlike the same parts in any of the other species. It is a larger and more robust form than the majority, and is apparently littoral in habit.

20. *Tenagomysis scotti*, sp. nov. (Pl. IV. figs. 6–11.)

Occurrence.—Station 85, five; Station 86, one; Station 93, thirty-six; Station 120, one; Station 122, four. All from north of New Zealand.

Description.—Carapace leaving the last two thoracic somites exposed, antero-lateral corners rounded, front produced into a short acute rostral plate with a blunt apex, extending half-way along the basal joint of the antennular peduncle, no pseudorostral projection.

Eyes normal, cornea occupying rather more than half the entire eye, pigment reddish brown rather than black.

Antennal scale extending beyond the antennular peduncle by about one-third of its length, narrowly lanceolate in form with apex obtuse, seven times as long as broad, an inner and an outer spine on the basal joint from which the scale arises.

Antennal peduncle not longer than the first two joints of the antennular.

Thoracic limbs long and slender, tarsal joint composed of four articulations in addition to a long and slender but distinct dactylus, a small spine on the outer corner of the basal joint of the exopod.

Sixth abdominal somite one and a half times as long as the fifth.

Telson as long as the sixth abdominal somite, deeply channelled dorsally, twice as

long as broad at the base, cleft for one-fifth of its length; cleft rather wide and armed with two plumose setae and with seventeen teeth on each margin; lateral margins of telson armed with 17–19 spines, the two proximal of which are longer and stouter than the succeeding spines except the terminal ones, which are one-tenth of the length of the telson.

Inner uropod one and a third times as long as the telson, a row of thirty spines on the inner margin extending from the statocyst to the apex.

Outer uropod about twice as long as the telson.

Exopod of the fourth pleopods of the male with the penultimate joint twice as long as the antepenultimate, the former joint alone possessing a single long, stout, modified seta. No such seta is present on the antepenultimate joint as in most of the other species of the genus.

Length of adult specimens of both sexes, 9 mm.

Remarks.—This species belongs to that group of the genus having the antero-lateral angle of the carapace rounded, and in that group is distinguished by the length of the antennal scale, the form of the rostrum, the shape and armature of the telson, and the exopod of the fourth pleopod of the male. It appears to be also a more oceanic species than the others. All the specimens were taken in townets in the neighbourhood of Three Kings Island, and none in the vicinity of the mainland of New Zealand.

21. *Tenagomysis tenuipes*, Tattersall.

T. tenuipes, Tattersall, 1918, p. 10, pl. XVIII, figs. 1–7.

Occurrence.—Not taken by the "Terra Nova." The type and only known specimen was taken by the Australian Antarctic Expedition in Carnelly Harbour, Auckland Islands.

Description.—Antero-lateral angles of the carapace rounded; anterior margin of the carapace produced into a triangular rostral plate with bluntly pointed apex, shorter than the eyes, and about one-third of the length of the first joint of the antennular peduncle.

Antennal scale considerably longer than the antennular peduncle, eleven times as long as broad, terminal joint minute but distinct.

Tarsus of the third to the eighth thoracic limbs divided into 9–14 joints.

Fourth pair of pleopods of the male with a long, stout, plumose seta on the antepenultimate and penultimate joints.

Telson longer than the sixth abdominal somite, two and a half times as long as broad at its base, cleft for one-fifth of its length, lateral margins armed throughout their entire length with about thirty-six spines.

Inner uropod one and a quarter times as long as the telson, inner margin armed with a row of spines from the statocyst to the apex, closely set proximally, more distantly placed distally and irregularly arranged in series.

Outer uropod one and a half times as long as the inner. Length 21 mm.

Remarks.—This species is easily distinguished by its exceedingly long and narrow scale, by the large number of joints in the tarsus of the thoracic limbs, and by the form and armature of the telson.

Tribe MYSINI.

Genus ANTARCTOMYSIS, Coutière, 1906.

22. *Antarctomysis maxima* (Hansen, MS.), (Holt & Tattersall).

Mysis maxima, Holt & Tattersall, 1906, p. 11 ; *Antarctomysis maxima*, Coutière, 1906, p. 1, pl. 1 and 2, figs. 1–20 ; Tattersall, 1908, p. 36, pl. VIII, fig. 1 ; Hansen, 1908, p. 13, pl. II, figs. 3*a–m* ; Hansen, 1913, p. 19 ; Tattersall, 1913, p. 872 ; Zimmer, 1915 (1), p. 203, text figs. 1–2 ; Tattersall, 1918, p. 12.

Occurrence.—Antarctic. Station 194, one female, 50 mm. ; Station 316, one female, 42 mm. ; Station 339, one adult male, 45 mm., two females (posterior ends only) ; Station 355, one male.

Distribution.—Circumpolar in Antarctic Seas.

23. *Antarctomysis ohlinii*, Hansen.

Antarctomysis, sp., Tattersall, 1908, p. 36, pl. VIII, figs. 2–12 ; *A. ohlinii*, Hansen, 1908, p. 13 ; Hansen, 1913, p. 20, pl. III, figs. 2*a–d*.

Occurrence.—Antarctic. Station 332, one male, 58 mm., one female carrying eggs, 71 mm., one immature female, 52 mm., one young, 24 mm. ; Station 343, three young, 10–12 mm. ; Station 346, one young, 10 mm. ; Station 355, one female, 50 mm.

Remarks.—The largest of these specimens is of much greater length than any of those examined by Hansen. The latter had adult females 50 mm. long, and his largest male measured 52.5 mm. The female of 52 mm. in the present collection has the incubatory lamellae only just developing, while the one with eggs in the brood pouch is 71 mm. long. Hansen has remarked that *A. maxima* appears to grow to a larger size in more southerly and therefore colder latitudes. The same would seem to apply to *A. ohlinii*, since Hansen's specimens were from latitude 54° S., while the "Terra Nova" collected it at least 23° further south.

Distribution.—Previously recorded by the "Discovery" and by the Swedish Antarctic Expedition only.

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PLATE I.

Mysidetes brachylepis, sp. nov.

FIG. 1.—Anterior end including rostral process, eye, antennular peduncle and antennal scale. × 43.

FIG. 2.—Telson. × 48.

Amblyops tattersalli, Zimmer.

FIG. 3.—Eye, dorsal view.

FIG. 4.—Eye, lateral view.

Promysis atlantica, sp. nov.

FIG. 5.—Anterior end, including rostral process, eye, antennular peduncle and antennal scale. × 100.

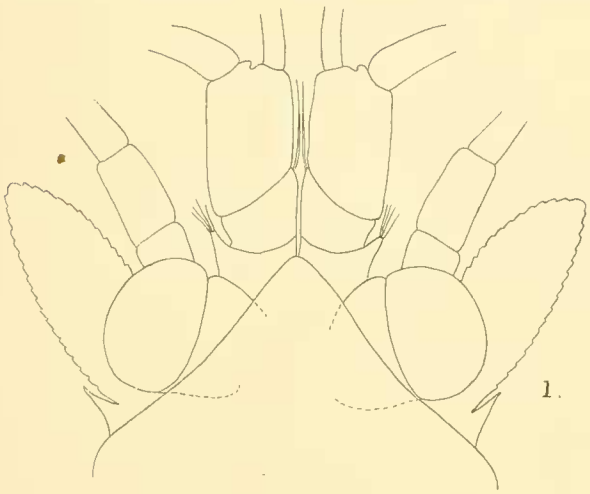
FIG. 6.—Telson and uropods. × 100.

Gastrosaccus australis, sp. nov.

FIG. 7.—Anterior end including rostrum, eye, antennular peduncle, antennal peduncle and scale. × 25.

FIG. 8.—First thoracic limb. × 33.

FIG. 9.—Second thoracic limb. × 33.



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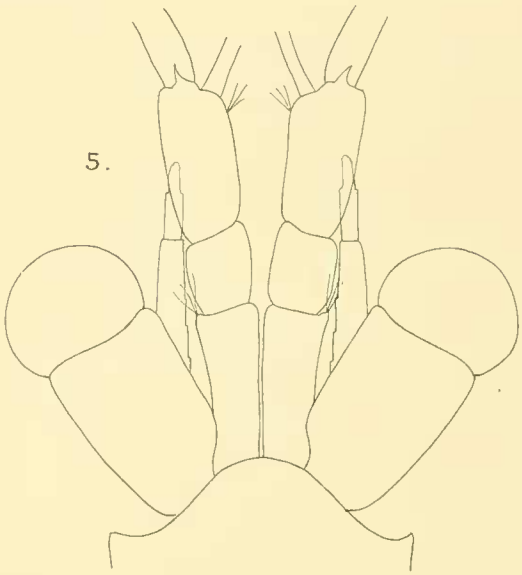

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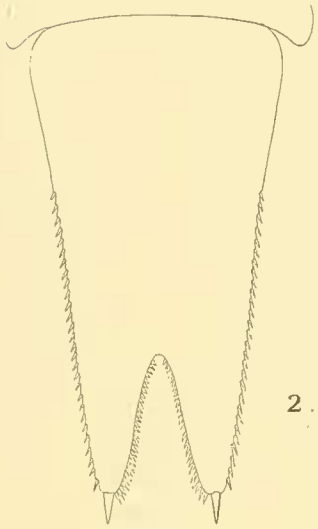

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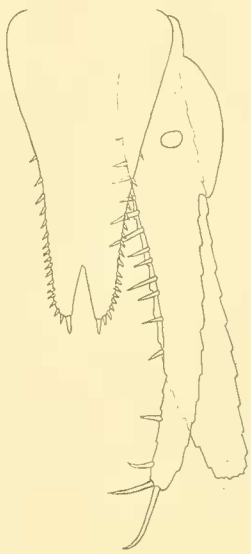

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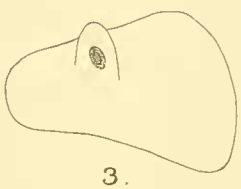

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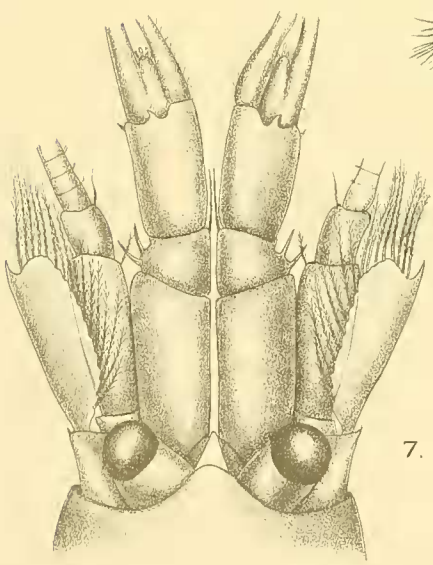

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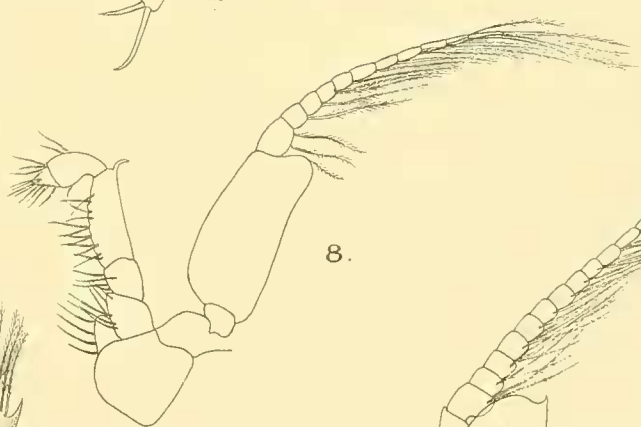

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PLATE II.

Gastrosaccus australis, sp. nov.

FIG. 1.—Eighth thoracic limb. × 33.
FIG. 2.—Second pleopod of male. × 33.
FIG. 3.—Third pleopod of male. × 33.
FIG. 4.—Telson. × 33.

Tenagomysis chiltoni, sp. nov.

FIG. 5.—Anterior end, including rostral plate, antero-lateral angles, eye, antennular peduncle and antennal scale. × 33.
FIG. 6.—Endopod of the third thoracic limb. × 33.
FIG. 7.—Endopod of the eighth thoracic limb. × 33.
FIG. 8.—Telson and uropods. × 33.

Tenagomysis similis, sp. nov.

FIG. 9.—Anterior end, including rostral plate and antero-lateral angles, eye, antennular peduncle and antennal scale. × 50.
FIG. 10.—Antennal scale. × 65.
FIG. 11.—Endopod of the third thoracic limb. × 65.
FIG. 12.—Telson and uropods. × 65.
FIG. 13.—Distal end of the exopod of the fourth pleopods of the male. × 160.

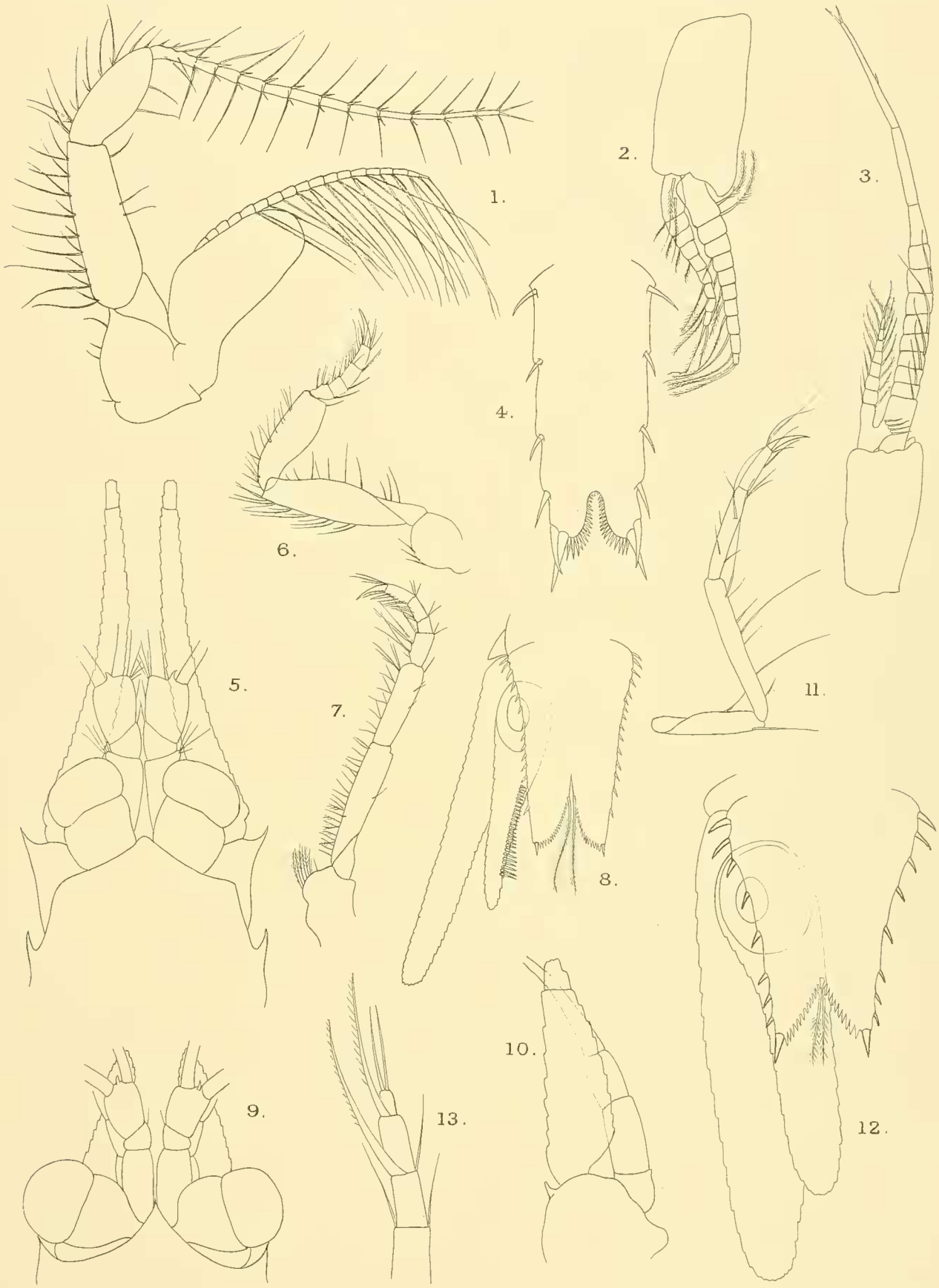
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PLATE III.

Tenagomysis macropsis, sp. nov.

FIG. 1.—Anterior end of male, including rostral plate and antero-lateral angles, eye, antennular peduncle and antennal scale. × 33.
FIG. 2.—Rostral plate and antero-lateral angles. × 33.
FIG. 3.—Eye of male. × 33.
FIG. 4.—Eye of female. × 33.
FIG. 5.—Antennular peduncle of male. × 33.
FIG. 6.—Antennal scale. × 33.
FIG. 7.—Eighth thoracic limb. × 33.
FIG. 8.—Distal extremity of endopod of eighth thoracic limb. × 106.
FIG. 9.—Fourth pleopod of male. × 33.
FIG. 10.—Distal extremity of exopod of the fourth pleopod of male. × 75.
FIG. 11.—Telson. × 65.
FIG. 12.—Uropods. × 65.

Tenagomysis producta, sp. nov.

FIG. 13.—Anterior end, including rostral plate and antero-lateral angles, eye, antennular peduncle. × 33.
FIG. 14.—Antennal scale. × 33.
FIG. 15.—Endopod of third thoracic limb. × 33.
FIG. 16.—Distal extremity of exopod of the fourth pleopod of the male. × 66.
FIG. 17.—Telson. × 33.
FIG. 18.—Uropod. × 33.

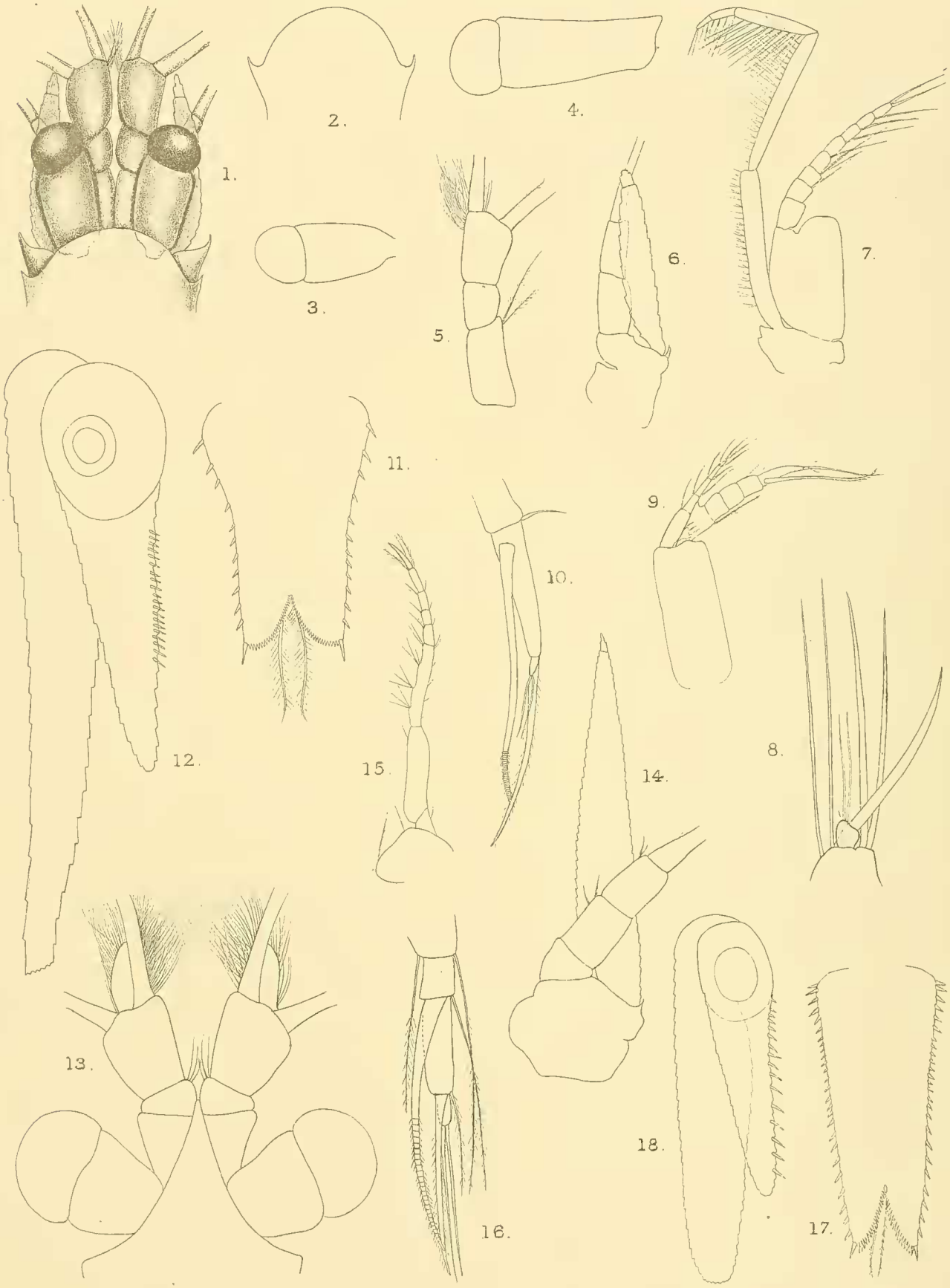
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PLATE IV.

Tenagomysis robusta, sp. nov.

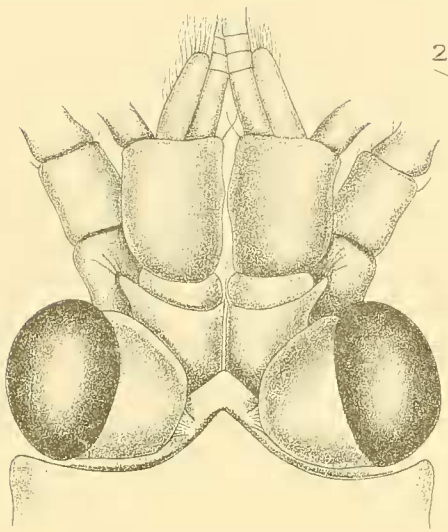
FIG. 1.—Anterior end, including rostral plate and antero-lateral angles, eye, antennular and antennal peduncles. × 50.
FIG. 2.—Antennular peduncle of male. × 48.
FIG. 3.—Antennal scale. × 48.
FIG. 4.—Telson and uropods. × 98.
FIG. 5.—Distal extremity of exopod of fourth pleopod of male. × 100.

Tenagomysis scotti, sp. nov.

FIG. 6.—Anterior end, including rostral plate and antero-lateral angles, eye, antennular peduncle and antennal scale. × 33.
FIG. 7.—Endopod of third thoracic limb. × 33.
FIG. 8.—Fourth pleopod of the male. × 33.
FIG. 9.—Distal extremity of the exopod of the fourth pleopod of the male. × 70.
FIG. 10.—Telson. × 65.
FIG. 11.—Uropod. × 48.

Tenagomysis thomsoni, sp. nov.

FIG. 12.—Anterior end, including rostral plate, antero-lateral angles, eye, antennular peduncle and antennal scale. × 33.
FIG. 13.—Antennal scale. × 33.
FIG. 14.—Third thoracic limb. × 33.
FIG. 15.—Distal extremity of exopod of fourth pleopod of male. × 33.
FIG. 16.—Telson and uropods. × 38.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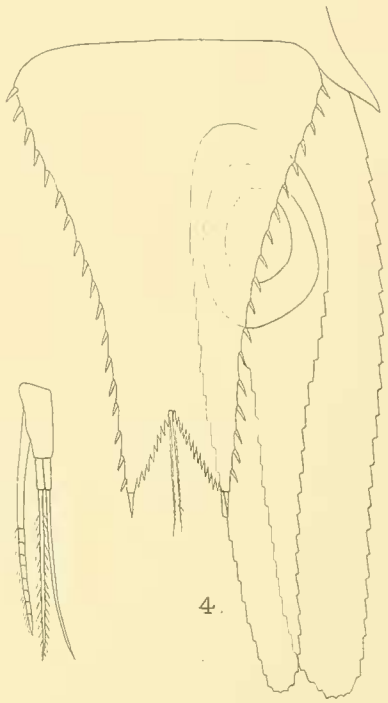
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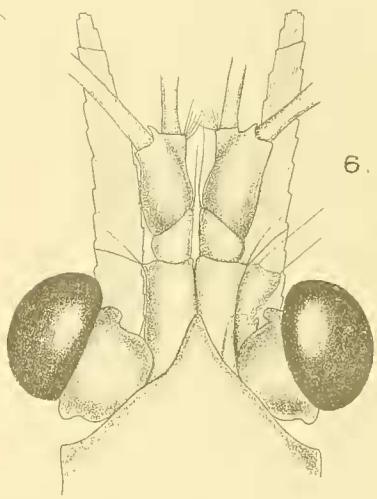
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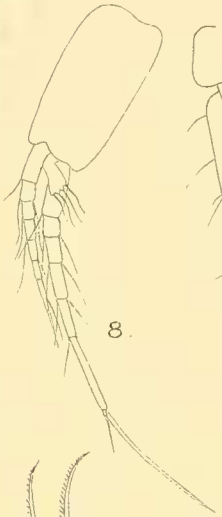
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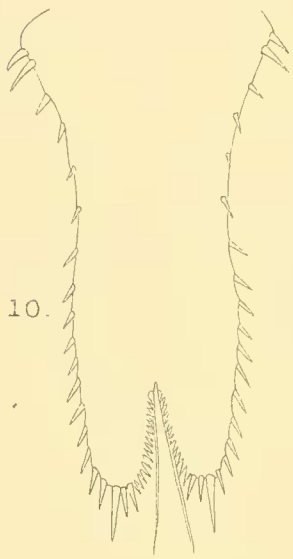
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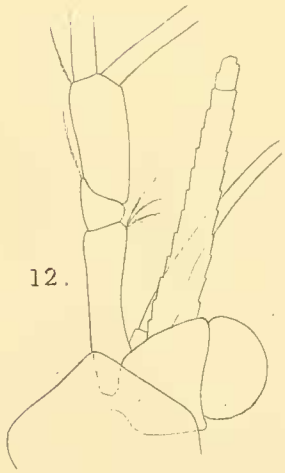
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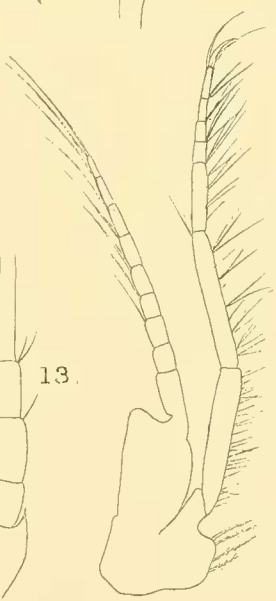
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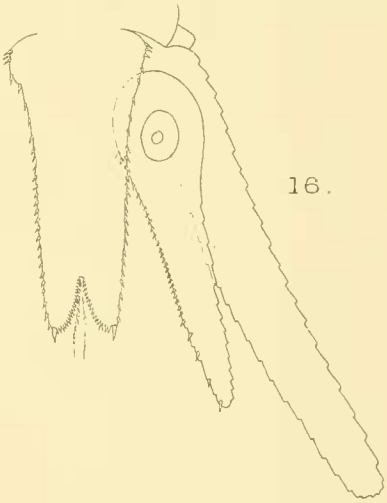
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